

Barriers and Strategies for DG adoption for Residential Customers in Disadvantaged Communities



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- Introduction to GRID Alternatives model
- Solar in low-income communities: broad-based community benefits
- Barriers to Solar Adoption
 - Challenges for Renters
 - Challenges for Homeowners
- Strategies to Overcome Financial and Marketing Barriers
- Wrap-up and Questions





Our Vision



A successful transition to clean, renewable energy
that includes everyone.



About GRID Alternatives

- Our mission is to make renewable energy and job training accessible to underserved communities.
- We do this through a “barn raising” model where we train and leads teams of job trainees and other volunteers install solar for low-income families
- Offices and programs: 7 CA offices; statewide program administrator for the SASH program; 3 out-of-state offices in CO, NY/NJ/CT, Mid-Atlantic; International program; Tribal program; and Women and Diversity in Solar Initiative



Why solar for low-income families?

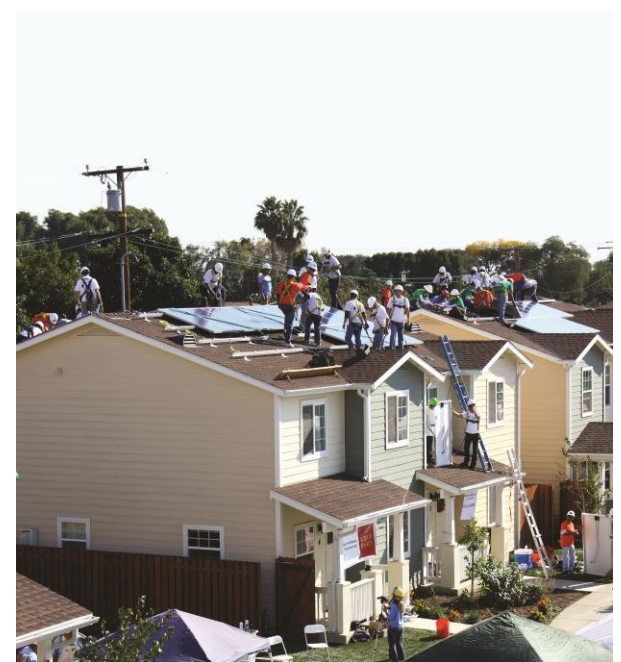
- **Economic**
 - High energy costs
 - Significant savings
 - Proportionally greater economic benefit
- **Environmental Justice**
 - Power plants often sited in low-income communities
 - High rates of asthma
- **Jobs**
 - Engages low-income communities in emerging sector
- **Helps Develop a Sustainable Solar Industry**
 - Moves the industry beyond the “initial adopter” phase; Solar can be accessible to all income segments and communities.



Multi-family Renters:

Barriers to solar adoption

- Renters are reliant on home or building owners to make decision to adopt on-site solar that could be of direct benefit to a them.
- In a multi-family property in a DAC, barriers for building owners to adopt solar that benefits low-income renters include:
 - Building owners lack expertise or technical capacity to evaluate solar opportunities
 - Difficult to pass benefits along to residents: challenges in subsidized housing with utility allowance; master-metered vs individual metered; roof constraints limit system size
 - Resource constraints: Decreased likelihood of capital improvements; solar requires financing solutions





Community Solar: Barriers to low-income participation

- In community solar or shared renewables, barriers for entry for low-income families are both:
 - **Financial** - inability to pay for upfront cost if a subscription or a premium price tariff and,
 - **Logistical** - marketing messages not tailored to customer segments; or, low-income customers unaware of programs and opportunities.
- Represents a small market opportunity for current models; low-market based incentive to focus marketing and outreach resources on low-income participation.





Homeowners: Financial Barriers to Solar Adoption

There are an estimated 2 million low-income homeowners in California. This group faces a host of barriers to customer-sited solar adoption:

Financial Barriers:

- Long term return on investment not a motivator, need day one positive cash flow
- Poor economics (small systems, electric rate, no tax liability)
- Unavailability of capital, inability to assume more debt
- Credit worthiness makes standard lease/PPA unsuitable





Homeowners: Marketing Barriers to Solar Adoption

Marketing/Logistical Outreach Barriers:

- Lack of knowledge about solar
- Multi-lingual, multi-cultural marketing challenge
- Cautious consumers. These groups are historically (and continuing today) the victim of predatory lending practices and subprime financial products.
- Vulnerable population, needs thoughtful program design that protects interests of low-income customers



How can Financial barriers be overcome?

- **Overcoming financial barriers:**

- Covering all upfront costs: GRID contributes its fundraising and philanthropic dollars, and leverages public-private partnerships to bring more dollars to the table to couple with SASH incentives.
- In Colorado, GRID has partnered with a utility to offer low-income residents a share in a community solar project – their fee to entry is covered by other shareholders.
- Innovative model to unlock ITC: GRID stands between the homeowner and a Third-party system owner, acting as a financial intermediary and consumer advocate in its TPO model.



How can Marketing barriers be overcome?

- **Overcoming marketing barriers:**
 - Partnering with trusted community organizations to market programs in disadvantaged communities
 - Multilingual and multicultural marketing
 - Focus on consumer education and consumer advocacy
 - Making sure what we are offering is undoubtedly a good deal for the long-term interests of the families we serve



Wrap-up and Summary

- Thoughtful, well-designed programs can help assure access to solar for all.
- The benefits of solar for low-income customers in disadvantaged communities can have positive multiplier effects.
- Aside from direct bill savings for low-income families and environmental benefits, these include: *creating valuable job training opportunities, promoting consumer education and awareness, supporting neighborhood improvement and resilience, and ensuring equity.*
- A successful program for customers in disadvantaged communities must consider the high financial and marketing barriers to entry and be designed in such a way as to overcome them.



Question and Answer session

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